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SALES METHODS AND POLICIES OF A GROWERS' NATIONAL MARKETING AGENCY.

A Study of the Organization and Achievements of Twenty-six Years of Cooperative Marketing by Part of the Cranberry Growers of the United States.

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CONTENTS.

	Page.
Introduction	1
The evolution of marketing methods:	
Early cooperative selling associations	5
The rise of national cooperation	7
The American cranberry exchange	9
Improvements resulting from cooperation:	
Grading	12
Pooling	13
Advertising	14
Cooperation with the trade	19
Coordinating demand with supply	20
Impracticability of price control	22
The expense of marketing cranberries:	
Local associations	27
The central association	28
Transportation	29
Jobbers (wholesalers)	31
Other wholesalers	31
Retail margins and prices	32
All marketing expenses	34

INTRODUCTION.

The cranberry has fared better in times of stress than other farm products. For this reason the marketing methods of the cranberry growers have been analyzed in detail in the hope that this analysis may furnish suggestions that will be helpful in the marketing of other farm products. Although this discussion deals specifically with the marketing of cranberries by cooperative methods, it is not written for the cranberry grower alone. It is addressed to all growers interested in successful marketing methods. It deals with the economic and not the legal aspects of the subject.

The noteworthy achievements of the cranberry growers are the outcome of evolutionary practices based upon 26 years of experience in selling through growers' cooperative agencies. The results of organized efforts in this industry are the more remarkable because of

the unusual difficulties which must be overcome in the successful marketing of cranberries.

The cranberry growers of the United States are widely separated. The three largest producing districts are in Massachusetts, New Jersey, and Wisconsin. Cooperative marketing involved the coordination of the growers in these three widely separated localities into one central selling association.

The consuming public looks upon the cranberry as a luxury rather than a prime necessity. It is generally considered a holiday fruit. Thanksgiving and Christmas bring the turkey with its cranberry sauce to the minds of the American people, but Thanksgiving and Christmas demands alone are not sufficient to support the industry. Figure 1 shows the seasonal demand for this fruit. Over three-

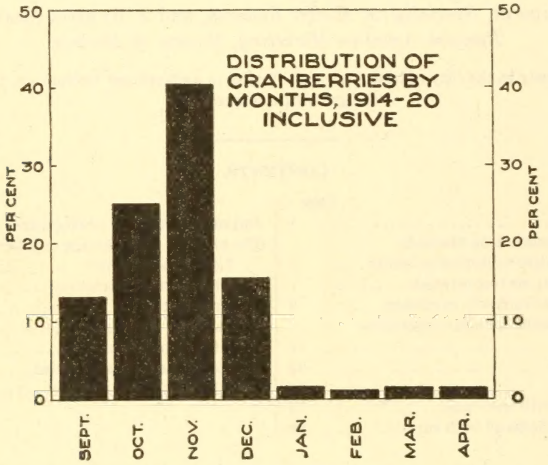

FIG. 1.—A problem of vital importance to cranberry growers is that of lengthening the consumption period. Since a large portion of the cranberry crop is now packed and shipped during three months, the grower is forced to maintain extensive screening and packing equipment which is idle all but a small part of the year.

fourths of the crop is marketed during October, November and December. This heavy demand during so short a period makes it impossible for many growers to maintain the necessary packing and screening equipment. Therefore, one of the important tasks before the growers is that of lengthening the consumption period. Furthermore, the consumption of the fruit depends, to no small extent, upon the supply and price of sugar.

Add to these difficulties the element of perishability and the problem of establishing uniform grades, and it can readily be seen that the successful marketing of cranberries is no small undertaking.

A few of the outstanding accomplishments of cooperation in this industry are:

1. A reputation for quality has been built up by establishing and maintaining uniform grades and packs.

2. Marketing risks have been distributed equally among all members of the association by means of pooling systems. High and low-priced orders, losses and gains through market fluctuations, and the risks of transportation, are equally divided. Pools are, in effect, a form of market insurance.

3. An advertising fund sufficient to bring the berries forcefully to the attention of the consuming public has been created by means of a small assessment per barrel. Through advertising, consumption has been increased to an extent sufficient to care for increased pro-

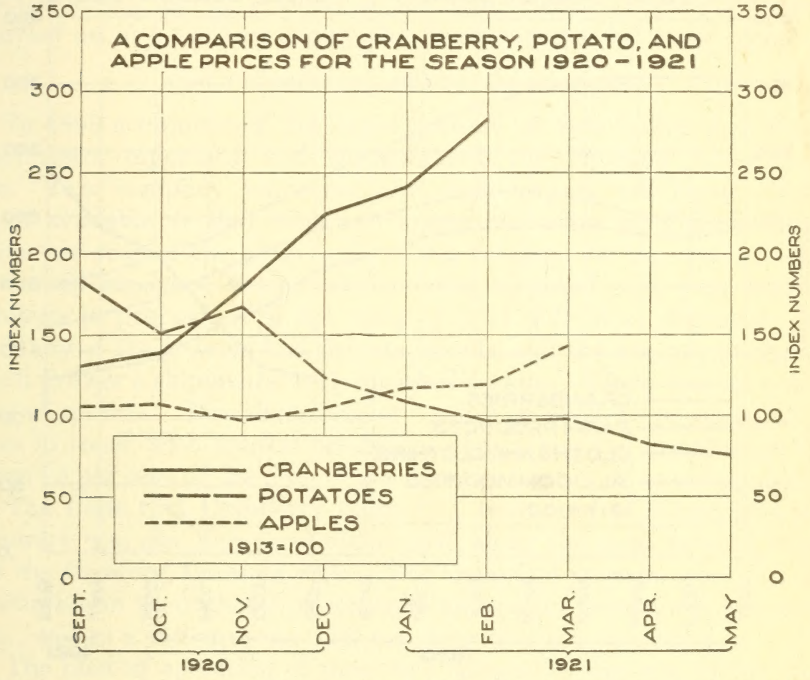

FIG. 2.—Apples, a staple fruit, and potatoes, a staple vegetable, did not fare so well as cranberries during the selling season of 1920–21.

duction. Advertising has played an important part in the achievements of the cranberry growers.

4. "Glutted" and "famine" markets have been eliminated by coordinating distribution from the three districts, and as a result market prices have been stabilized. Cranberry prices did not rise during the war in proportion to other prices. On the other hand, cranberry prices did not fall during the selling season of 1920–21, when prices of practically all farm products, as well as other commodities, declined rapidly. (See figs. 2 and 3.) This stabilization of the market, together with the establishment of uniform methods of dealing with the wholesale and retail trade, has built up a good-will relationship with the trade to a degree which could not have been reached by the growers individually.

5. The goal of cooperative marketing of perishable food products is to obtain the highest average price which will move the entire supply year after year. To this end the adjustment of demand forces to the supply of any given year requires a close study of ever-changing conditions affecting the price of the product. By cooperation the cranberry growers are in a position to employ specialized business men capable of advising them regarding supply and demand forces and their probable effect upon price and market conditions. Thus

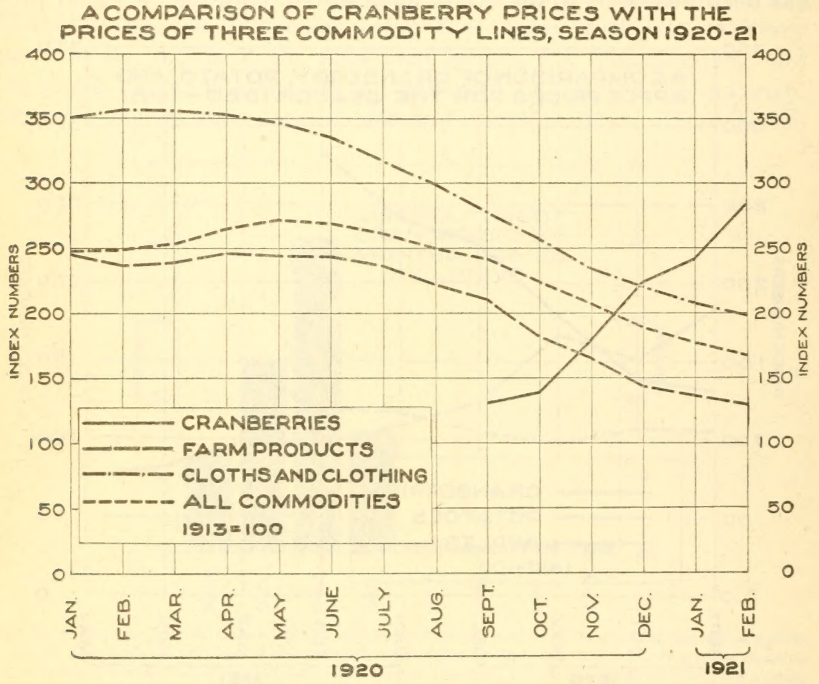

FIG. 3.—Prices of practically all commodity lines fell rapidly during the cranberry selling season of 1920–21. Cranberries were an exception to the rule. It should be noted that the price of cranberries at the opening of the season was at a level much lower in proportion to the 1913 price than were the prices of the other commodity lines shown. It is the policy of the growers' company to open the season with a low price for the purpose of encouraging consumption.

the growers put themselves in a position to gauge the factors which influence the sale of their product and are better prepared to take advantage of market conditions as they find them. Individually the growers were unable to do this.

6. The wide fluctuation in yields from year to year shows that the exchange has little or no control over the volume produced. Hence its energies are necessarily turned toward economies in marketing and stimulation of consumption. These are matters over which the growers acting as individuals can have but little control.

7. The cost of marketing cranberries has been reduced until now it is believed to be one of the lowest, if not the lowest, among the fruits. In 1920 the grower received 54 per cent of the consumer's dollar.

THE EVOLUTION OF MARKETING METHODS.

A national cooperative association was organized in 1907 for the purpose of uniting the cranberry growers of the country on a single method of disposing of their product. Cooperation among cranberry growers had its beginning prior to this time, however. Concerted action among growers in the sale of their berries had been carried on in both New Jersey and Massachusetts for some years.

EARLY COOPERATIVE SELLING ASSOCIATIONS.

In 1895 a number of the larger growers of New Jersey and Massachusetts organized and incorporated the Growers' Cranberry Co. This company employed the most expert cranberry salesman available at that time and opened an office in Philadelphia. Five per cent of the gross receipts was retained by the treasurer to cover all expenses, the remainder being returned each year to the growers in proportion to the value of their individual shipments.

Many of the growers had private brands, and the net receipts from each grower's shipments were returned to him. There was no pooling of returns. The advantage of having an efficient salesman who was in touch with market conditions controlling the distribution of even 25 per cent of the crop of the country became at once apparent.

The Cape Cod Cranberry Sales Co., composed of Massachusetts growers, was also organized about 1895 along the same general lines as the Growers' Cranberry Co. The Cape Cod growers were not so fortunate in their choice of salesman as was the Growers' Cranberry Co., and as a consequence their company was less successful.

The plan of operation of these two companies was not wholly cooperative as that term is defined today. The product of each member was sold separately, and returns were made to each member on the basis of the sale of his individual product. Berries were sold under the private brands of the individual growers rather than under a brand of the association. There was no coordination of sales between the two districts. Imperfect as was this form of cooperation, it was a great advance over no cooperation, and without question the experience gained by growers during this earlier period had much to do with their marketing successes of later years.

At the time these two growers' companies were operating the greater portion of the crop was sold by growers to cash buyers who traveled through the cranberry districts conducting separate negotiations with each grower. Some berries were marketed on a com-

mission basis also. These methods proved to be wholly unsatisfactory. The grower had no choice other than to accept the price offered, which in too many cases did not cover production costs. Furthermore, there were evidences which pointed toward collusion on the part of some of the buyers with a view to depressing prices. In 1902 there were 10 important car-lot cranberry shippers, and the severe competition among them often resulted in "cutthroat" practices.

It was the disastrous year of 1906 which actually brought about the formation of a central cooperative selling association, the National Fruit Exchange. Alliances among dealers were formed in that year for the purpose of attacking other dealers. Competition of a vicious sort was resorted to, some buyers offering the growers $5.50 a barrel [1] and quoting the trade $5. Rumors were afloat concerning the financial standing of the different buyers, and a general unhealthy condition was brought about. On top of the demoralized state of the trade came one of the largest crops that had been produced up to that time, and the country simply would not consume it. Prices fell as low as 70 cents a barrel, and carloads of berries were never shipped because they would not bring enough to pay freight charges. Notwithstanding these adverse conditions, such cooperation as existed among the members of the Growers' Cranberry Co., and the established reputation of their brands, enabled them to sell their 1906 crop at fair prices. One member of the company received an average of $6.51 a barrel net for his entire crop of over 8,000 barrels. All of the private concerns which handled berries that year lost heavily and were pessimistic regarding the future of the industry. In addition, there were prospects of a large increase in the production of cranberries. Newly planted bogs would soon come into bearing, and the growers realized that unless something was done the cranberry industry would soon be wiped out through lack of profits. If the country would not consume a normal crop on the acreage then in bearing, what would happen when this new acreage should begin yielding? This was the very real problem which faced the growers.

The figures in Table 1 show that the forecasts of increased production were correct. By 1909, just three years later, the crop had increased nearly 200,000 barrels.

[1] 100 pounds net in one barrel.

TABLE 1.—*Cranberry production, 1909–1921.*[1]

[In barrels.]

Year.	Massachusetts.	New Jersey.[2]	Wisconsin.	Total.
1901–2	240,000	105,000	40,000	385,000
1902–3	215,000	30,000	46,000	291,000
1903–4	204,000	168,000	18,000	390,000
1904–5	256,000	83,000	21,000	360,000
1905–6	146,000	88,000	18,000	252,000
1906–7	240,000	103,000	45,000	388,000
1907–8	285,000	121,000	21,000	427,000
1908–9	233,000	75,000	12,000	320,000
1909–10	373,000	165,000	30,000	568,000
1910–11	287,000	241,000	16,000	544,000
1911–12	273,000	143,000	30,000	446,000
1912–13	300,000	112,000	45,000	457,000
1913–14	339,000	100,700	30,000	469,700
1914–15	450,000	155,000	33,000	638,000
1915–16	234,900	184,100	35,000	454,000
1916–17	337,700	168,500	38,000	544,200
1917–18	120,600	128,000	27,000	275,600
1918–19	195,000	126,700	30,000	351,700
1919–20	360,000	156,000	40,000	556,000
1920–21	277,000	130,000	33,000	440,000
Average	268,310	129,150	30,400	427,860

[1] These figures are based on freight records. Estimates of the Department of Agriculture extend only from 1912. The difference between the department figures and the figures of the American Cranberry Exchange from 1914 to 1920, here used, are not material.
[2] Includes Long Island production.

If this situation were to be remedied several things had to be done. In the first place, the growers themselves would in some way have to cooperate rather than compete in the marketing of the crops. They were unanimous in the opinion that cranberry production could not flourish on the basis of individual bargaining in the sale of the product. The disastrous, wasteful competition among the buyers must cease, for it had its direct effect upon the growers through the medium of ruinously low prices. And the demand for cranberries must in some way be made to keep up with the prospective increase in production. How these things were accomplished is in a large measure the story of an efficient marketing movement.

THE RISE OF NATIONAL COOPERATION.

A new epoch in the history of cooperative marketing among cranberry growers begins with the organization and operation of the Wisconsin Cranberry Sales Co. in 1906. This association was built on broader cooperative lines than were the New Jersey and Massachusetts companies.

The Wisconsin growers agreed to pool and market all their berries through this newly formed company. A private car-lot shipper was appointed as exclusive selling agent. Over 90 per cent of the growers of the State joined the company and it found immediate success.

The outstanding accomplishments of the members of this company in distributing their crop on the cooperative plan during the disas-

trous year of 1906 brought to the attention of the eastern growers a plan which they believed would aid materially in the solution of their marketing problems. Consequently the selling agent was asked to come East and explain to the growers of New Jersey and Massachusetts the plan of organization of the Wisconsin company. As a result, the New England Cranberry Sales Co. and the New Jersey Cranberry Sales Co. were formed in 1907, modeled after the organization in Wisconsin. Approximately 35 per cent of the growers in Massachusetts and 30 per cent of the growers in New Jersey joined the new associations.

These three State companies then formed a central selling organization, known as the National Fruit Exchange. This exchange was owned exclusively by the three State associations and operated by them on a nonprofit basis. Each company was represented on the board of directors according to the amount of acreage controlled by it, but no one company was allowed to have a majority of board members. Offices and distributing houses were opened in New York and Chicago, and store facilities were obtained in other large markets. The growers were assessed 7 per cent on the selling price of berries f. o. b. shipping point. Of this amount 2 per cent went to the State company and 5 per cent to the central selling organization for expenses. Money left over at the end of the season was refunded to the State association in proportion to the amount of business contributed.

During the next few years the National Fruit Exchange was in active competition with the Growers' Cranberry Co. It will be remembered that the latter company, although cooperative, did not have a pooling system and did not grade its fruit uniformly. Each grower's fruit was marketed separately at his own risk. The large crop of 1910, together with the losses incident to price cutting between two strong growers' organizations in active competition, led to the consolidation in 1911 of the Growers' Cranberry Co. with the National Fruit Exchange to form the present American Cranberry Exchange. The New Jersey Cranberry Sales Co. went out of existence and the Growers' Cranberry Co. took its place in the central organization. This consolidation increased the membership of the exchange about 20 per cent.

In 1919 each company reorganized and formed a nonstock, nonprofit, cooperative organization in order to comply with the Clayton amendment of the Sherman antitrust law. However, no change was made in the marketing methods or operation and the former pooling and grading systems were retained. At the present time, the exchange controls about 75 per cent of the total crop in Wisconsin, and about 65 per cent in both New Jersey and Massachusetts.

TABLE 2.—*Volume of business handled by the exchange since its organization in 1907.*

Year.	Shipments.	Value.	Average price per barrel.
	Barrels.		
1907–8	143,646	$909,542	$6.33
1908–9	110,274	863,847	7.83
1909–10	207,014	1,066,947	5.15
1910–11	188,062	1,058,903	5.63
1911–12	235,696	1,680,302	7.13
1912–13	259,254	1,710,403	6.60
1913–14	278,670	1,797,809	6.45
1914–15	323,173	1,284,163	3.97
1915–16	259,780	1,642,708	6.32
1916–17	279,476	1,828,900	6.54
1917–18	154,812	1,608,847	10.39
1918–19	209,666	1,863,244	8.89
1919–20	321,374	2,526,153	7.86
1920–21	284,019	2,935,818	10.34
Average	232,494	$1,626,970	$7.00

THE AMERICAN CRANBERRY EXCHANGE.

The American Cranberry Exchange is a membership organization composed of cranberry growers who are also members of one of the three State companies. It functions merely as a selling agency for its members. To explain the organization, it is necessary to explain the makeup of the State associations. The New England Cranberry Sales Co. is the largest of the State units and may be used as an example of the form of organization.

The New England Cranberry Sales Co. was incorporated originally in Massachusetts in 1907 and reincorporated in the same State in 1919. It is a nonstock and nonprofit growers' cooperative organization with its principal office at Middleboro, Mass.

The membership of the company consists of "persons, firms, associations, or corporations engaged in the business of growing, packing, or shipping cranberries or their by-products." To become a member, a written application must be made to the board of directors and must be approved by two-thirds of the directors present and voting. A membership fee of $20 is collected, half of which goes to the State association and half to the central organization. The dues are $1 a year. Each member is entitled to one vote. The State associations do not have specific membership contracts. However, "each member, until he ceases to be such, agrees to deliver and ship his entire cranberry crop under the rules and regulations of the company." In most cases it is recommended that members be required to sign contracts in addition to signing the by-laws.

The officers of the company consist of 33 directors, a president, first and second vice president, treasurer, and clerk. The board of directors must be elected from among the members of the company.

The directors have the duty, authority, and full power to perform, or authorize to be performed, all acts which in their judgment are necessary in promoting, protecting,

or advancing the prosperity and business interests of the company or the object for which it was organized, limited only by the laws of the Commonwealth or by the charter or by-laws of the company explicitly reserved to the members.

Members may, by a two-thirds vote of those present and voting, at any annual meeting or other meeting called for that purpose, authorize the directors to levy an assessment, not exceeding a definite amount per barrel, or its equivalent, on cranberries marketed; the proceeds to be spent for advertising or other special services relating thereto, but for no other purpose; the assessment to be deducted from the proceeds of sales.

The expenditure for advertising amounted to 27½ cents a barrel for the year 1920–21.

The directors are also empowered to determine the percentage of the proceeds of sales to be retained for selling and operating expenses and the maintenance of the operating fund, which percentage, it is estimated, should not exceed 7 per cent.

The companies have no capital stock. The State companies are allotted 2 per cent, deducted from sales f. o. b. shipping point, to cover operating expenses, while the central organization is allotted 5 per cent. In Massachusetts a reserve fund is maintained which consists of the unexpended balance of the 2 per cent allotment together with the company's share of the unexpended balance of the 5 per cent allotment to the central association. These unexpended balances are kept in the hands of the company for one or more years before they are returned to the growers in the form of sales expense refund. A small reserve of from $1,000 to $5,000 is maintained by the Wisconsin company on the same basis.

In New Jersey a revolving fund is maintained by means of loans from members. The initial loans are repaid in five equal annual installments and all subsequent loans run for 5 years without interest. The Massachusetts company has a similar arrangement, with the exception that the loans run for 10 years instead of 5. Since the loans are made by members in proportion to their volume of patronage, each member contributes a share to the revolving fund equal to the benefits he receives from the association.

During the year 1920 the New England Cranberry Sales Co. borrowed over $400,000, which was used to make partial payment to members for cranberries of standard brands shipped. These loans are made upon receipt from the shippers of the bills of lading. These advance partial payments have varied from $3 to $5 a barrel, depending upon the market price of the berries. The Growers' Cranberry Co. of New Jersey advanced over $100,000 to members in a similar manner.

In this way the members, through group action, perform a financing as well as a marketing function. The collective credit of the group makes necessary funds available to the individual growers.

The membership in the various companies is approximately as follows: Massachusetts 350, New Jersey 115, and Wisconsin 43, making a total of 508. In many cases a membership consists of a company rather than an individual. Consequently the number of members is not an indication of the size or importance of the association when comparing it with other growers' organizations. A single company holding only one membership may grow and ship through the association more than 75 cars of berries in a single year.

The growing of cranberries requires, relatively speaking, large amounts of capital. It is not unusual for the cost of developing a bog to exceed $750 per acre. Furthermore, picking, sorting, and packing charges ordinarily run from $100 to $300 per acre for a single year.

TABLE 3.—*Cost of handling cranberries from the bog to the car at local shipping point, 1920.*[1]

State.	Number of barrels included in cost records	Total cost.	Cost per barrel.
Massachusetts	41,612	$119,120.36	$2.86
New Jersey	16,401	70,531.11	4.30
Wisconsin	4,936	18,187.54	3.68
Total	62,949	207,839.01	
Average			[2] 3.35

[1] This cost includes picking, sorting, packing, storing, and carting. Expenses of growing and the interest and depreciation on capital and equipment involved in handling the crop from bog to car are not included. The figures are based on costs to a number of representative growers in the three districts.

[2] This average is obtained by weighting the cost per barrel in each State with the volume of cranberries shipped by the association from that State.

The Massachusetts association operated four houses during the season of 1920 for the cleaning and sorting of the berries of members at cost. The operating expenses of these houses averaged 54 cents a barrel for cleaning, packing, sorting, and overhead expenses. This figure does not include the cost of picking, containers, storage, or cartage.

The amount of capital required in the growing of cranberries explains the tendency toward group action in the production of this fruit.

The organization of the American Cranberry Exchange is very similar to that of the State companies: the main difference is that it has only 13 directors. The members are elected in the same manner as in the State companies. The members in the three State companies elect delegates to the annual meeting of the American Cranberry Exchange, who are elected directors of the exchange at the meeting, most of the members voting by proxy. Massachusetts supplies 6 directors, New Jersey 5, and Wisconsin 2. No one State is allowed a majority on the board of directors.

IMPROVEMENTS RESULTING FROM COOPERATION.

The improvements of marketing methods have been brought about through developments along five rather distinct lines. The first and basic improvement was that of raising the quality of the fruit reaching the consumer by means of close grading and careful packing. Next pooling systems were adopted which equalized prices to growers for the same grade of product. These two procedures were fundamental and upon them the associations were able to build constructive policies looking toward the stabilization of the market and the extension of the demand for their product.

In addition to improvements in the way of equitable pools, better grading, standardizing, and packing, the cranberry growers have also amply demonstrated the possibility of great market improvement by means of better correlation of demand with existing supply. This improvement has been brought about in three ways: (1) By securing the good will of the consuming public through advertising; (2) by cultivating the good will of the jobbing and retail trade through stabilizing the market; (3) by carefully estimating the potential supply of cranberries to be sold, together with the probable demand, and then attempting to place an opening price upon the product at a rate that will induce the consumption of the existing supply.

GRADING.

In the matter of grading, the cranberry industry has developed along lines different from those obtaining among most other perishables. Early in the history of the industry individual growers established brands, defined them in loosely approximate terms, and sold by these brands to the trade. The problem of the exchange was to standardize these brands in such a way that they would form a reliable medium for buying and selling between grower and wholesaler and a sound basis for advertising. Something like 80 brands designating quality, State where grown, and variety are known to the wholesale trade. However, cranberries reach the ultimate consumer under one name only—the association's good-will emblem. Under this one brand the association in effect notifies the consumer that it assumes the responsibility for the quality of the berries sold under this name.

At the time of the organization of the selling agency in 1907, the trade was confused by a multitude of loosely defined brands, many of which were only slightly known. This limited knowledge on the part of the trade made it extremely difficult to sell berries in any markets except those where a particular brand was known. It is practically impossible to sell berries in any way except by brand, because the markets in the United States vary widely as to the type of berry desired. New Jersey berries do not sell well in New York but are

very popular in the Middle West. New York City prefers a dark-colored berry, while Pittsburgh, St. Louis, and many western markets prefer the lighter-colored fruit as the darker fruit is considered by them overripe.

In order that national distribution might be accomplished, such as the exchange contemplated, it was necessary that standardized grades be established and that these grades be designated by widely-known brands. The adoption of company brands at first restrained a number of the largest growers from joining the cooperative associations, because of their objection to surrendering the individual brands under which they had been selling fruit for many years. However, most of these growers later joined and are now loyal supporters of the exchange.

There are several principal varieties of berries grown in the three States. These varieties are classified according to size, color, and shipping quality. The latter is taken into consideration because berries which are of the same variety and color often differ as to shipping quality. The shipping quality is usually determined entirely by experience and personal judgment. To take care of these numerous differences, it was found necessary to establish some 80 different brands. This allows a buyer to order the exact type of berry he wishes merely by designating the brand.

The associations employ a number of district field agents who regularly visit the growers in their own districts during the packing period to inspect the crop and insure proper grading and packing, to collect information as to the quality and quantity of the crop, to keep the members informed as to the trend of markets, to arrange for shipments, and to be of service to the members and their sales agency.

POOLING.

Another change brought about through cooperation was the establishment of pooling systems, an innovation in the cranberry industry. Previously, companies which had been formed for the marketing of berries had sold on a commission basis, remitting to the grower the price which his particular berries had brought, minus the commission.

The manager of the newly organized selling agency believed, however, that centralized selling control was a necessity, if success were to be attained. In order that centralized selling control might be established, it was necessary to adopt some system that would eliminate the possibility of unfair distribution of high or low priced orders among the members. In addition, it was necessary to equalize transit risks and market fluctuations after the berries were out of the growers' control. The pooling system was adopted as answering these purposes.

The pooling system established on Cape Cod was different from that in New Jersey. In Massachusetts only one pool exists for each principal variety for the season. The grower is required to ship his berries whenever he is told to do so, and receives the average price of the season obtained on the fruit shipped. If he is required to hold his berries longer than a stated time, he is paid premiums to reimburse him for the normal shrinkage of the berries while in his possession, this premium becoming greater the longer the berries are held. The amount of the premium is decided by the members at the beginning of each season.

In New Jersey the seasonal pool does not exist. There they have weekly pools and the grower may ship in any week he chooses. The difference in the pooling systems of the two companies is caused primarily by the preponderance of small shippers in New Jersey who want to choose their own time for selling. Owing to their small individual crops, they can store their berries for some time without inconvenience. The pooling system in Wisconsin follows very closely that of Cape Cod and includes only one pool a year.

Without question the grading and pooling systems instituted by the exchange have contributed in a large measure to the success of the undertaking.

ADVERTISING.

The good will of the consuming public is a valuable asset in any attempt to increase the consumption of a specific commodity. If the cranberry growers were to receive the cost of production for their fruit it was necessary that consumption be increased. Hence the exchange turned to advertising as a means of creating a favorable attitude in the minds of the public toward the cranberry as a food product. It should be emphasized that by means of improved grading and packing, which resulted in a higher quality of fruit reaching the consumer, the associations had already gone a long way in cultivating the good will of the consumer. Had not the associations raised their quality to a high standard through careful grading and packing, it is doubtful whether advertising could have been carried on successfully, since it is generally agreed that effective advertising of a food commodity requires uniform quality. For instance, when the consumer is induced by advertising to use a certain commodity of pleasing quality, the effect of the advertising is lost as soon as the quality becomes displeasing. If the public asks repeatedly for a certain branded article it is because the quality represented by the brand has proved satisfactory in the past. Hence it is of the highest importance that quality be consistently maintained. It does not follow that only high quality can be advertised with success. The consumer and the trade must know, however, that they are receiving the same quality under a given brand that they have received in the past under the same

brand. In the case of the cranberry growers, it can be safely said that the basis of their advertising efforts was the establishment of standardized brands and packages.

In 1906 the country would not consume the heavy crop of cranberries at anything like a price approaching production costs. Furthermore, at that time there was every indication that production would increase. Production did increase from 388,000 barrels in 1906 to 544,000 barrels in 1916. At the same time that the increase in supply threatened to demoralize selling prices, the cost of production was continually rising. In 1919, it is estimated that the average cost of producing a barrel of cranberries was somewhat more than the average selling price for the years 1907–1917.

In the face of these rising costs, in 1916 the growers through their organization decided that increased consumption was the only way out. To this end a trial advertising campaign was inaugurated in Chicago in an attempt to find out just what advertising would do for the consumption of cranberries. About $23,000 (not a large amount as advertising sums go) was spent that year in Chicago in newspapers, street cars, printed bulletins, and service work.

TABLE 4.—*Comparison of sales in 1916 with those in 1913, 1914, and 1915 in six leading markets.*

Market.	Gain or loss in 1916 over—		
	1913	1914	1915
	Per cent.	*Per cent.*	*Per cent.*
Chicago	+57	+27½	+47½
New York	− 2	−18	+ 5
Boston	−36	−12	−50
Philadelphia	−41	−57	−17
Pittsburgh	−13	−18	− 1
Buffalo	−11	− 7	− 8
Cleveland	−22	−10	− 8

In the table it will be noticed that the Chicago sales for 1916 show a decided increase over the sales of the three preceding years, while the other markets with but one exception show a loss.

This test campaign indicated that advertising increased consumption, and it was decided to continue the practice on a larger scale. In 1917 an advertising assessment was made, but the campaign was abandoned because the crop was cut in half by a September freeze.

In 1918 the first national advertising campaign was inaugurated and $54,000 was spent in about 30 days, beginning about October 15 in the United States and October 6 in Canada. The market outlook was indeed black. Sugar distribution was restricted by the Federal Government to 2 pounds per capita per month, whereas the normal consumption is 4½ pounds per capita per month. The weather was warm. The trade in general was apathetic and the universal opinion

was that cranberries would have a very slow and moderate sale no matter what price was asked. But largely as the result of advertising and efficient marketing methods, cranberries had an unusually successful season. The price mounted steadily from the middle of November to the last week in December, when it reached $22 a barrel.

The advertisements were along educational lines. Much emphasis was placed upon methods of serving the fruit in such a way as to arouse and please the appetite. Because of the sugar shortage, attention was also given to methods of cooking the cranberry with much less than the usual amount of sugar.

The following are a few expressions received by the exchange from the same agents and customers in widely scattered markets just before and just after the advertising campaign:

BEFORE.	AFTER.
A. Broker.—October 26: "Refuse confirmation. Deaf, dumb, and blind to cranberries."	A. Sold six cars in November.
B. Broker.—October 24: "We can not encourage any shipments in here until there is a better demand. Still have about 80 barrels of the last car Mayflower on hand."	B. Sold 12 cars in November. November 20: "The trade has waked up here in the last 24 hours and now seems to want its cranberries delivered at once. We congratulate you on the way you have handled the situation."
C. Broker.—October 24: "Cranberries are moving very slowly. I should be able to sell the car you wish to ship Friday but to be frank it will be a hard job."	C. Sold seven cars in November and could have sold many more. November 29: "This mode of procedure is like frenzied finance, and it makes me dizzy to keep up. I hardly know where I stand, only I must have another car or two shortly and will look to you to get some for me."
D. Broker.—October 25: "The jobbers seem to have it in their heads that cranberries are not going to sell here to any great extent."	D. December 4: "Jobbers all out of cranberries. Can't you possibly divert or ship car? Would like to get enough to make a minimum car from Chicago. Want them to cost not more than $17.40 delivered."
E. Broker.—October 25: "Our customers are badly stuck with early blacks; one still has over 100 barrels on hand because there is absolutely no sale for cranberries at present."	E. November 27: "I find everybody demands their full share of berries; therefore I am in a pinch. I can not fill all my orders even if the next car contains 240 barrels. Of course I will be obliged to cut some of my customers down and they will squeal, because the demand has been very large and so much better than we expected."

It is the belief of those in authority that if no advertising had been done during the year the crop would have netted less than $6 a barrel, which was not considered a profitable price to the grower.

As it was, however, an average price of $8.89 a barrel was obtained, resulting in an estimated gain of over $1,000,000 to the growers.

Conditions in 1919 were worse than ever before. There was a very large crop (556,000 barrels), the third largest in the history of the industry. The sugar situation instead of improving was becoming worse. Transportation facilities were demoralized and weather conditions were adverse. The opening price for cranberries was placed at $8.50 a barrel. In the last week of September severe sugar restrictions were placed on the country and the price of sugar rose to 25 and 30 cents a pound retail. The price of cranberries fell to $7.50 by the middle of October. Approximately $123,580 was spent in advertising that year. Toward the last of October results began to be felt, and by the middle of November the price again reached $8.50.

For the year 1920 there was an allotment of approximately $108,000 for advertising purposes. Of this amount, $77,937 was expended on advertising, which was an amount equal to 27½ cents a barrel on the total sales of the season. Nearly $31,000 of the advertising assessment was returned to the growers, because the demand was sufficient to clean up the supply without further advertising expenditure.

Up to and including the season of 1920–21 a total of $293,434 was spent for advertising purposes. This amount is equal to an average of 20 cents a barrel on all cranberries shipped cooperatively from 1916 to 1921.

It will be noticed from the data contained in Figure 4 that more money was received for a small crop in 1917 than was received for a crop over twice as large in 1914. Since 1917 the amount of money received has been more nearly in proportion to production. That is, a large crop has not necessarily meant small total receipts.

It might be inferred that the increased receipts from cranberry sales were due to the general wave of rising prices. But this can hardly be the case, for the price and scarcity of sugar had a tendency to depress cranberry prices. This tendency was combated by the stimulation of consumption through advertising. Furthermore, if the increase were due in any large measure to the forces that caused prices to rise during the war, it would naturally follow that cranberries would fall in price during 1920–21 in the face of an average crop and in a period of falling prices, but this was not the case.

The bad years test to the fullest extent the advantages of cooperation. In all probability had it not been for advertising and the ability of the exchange to distribute shipments in a way to establish and maintain a reasonably stable market, many carloads would not have been sold at all in 1919, and the rest would have been sold

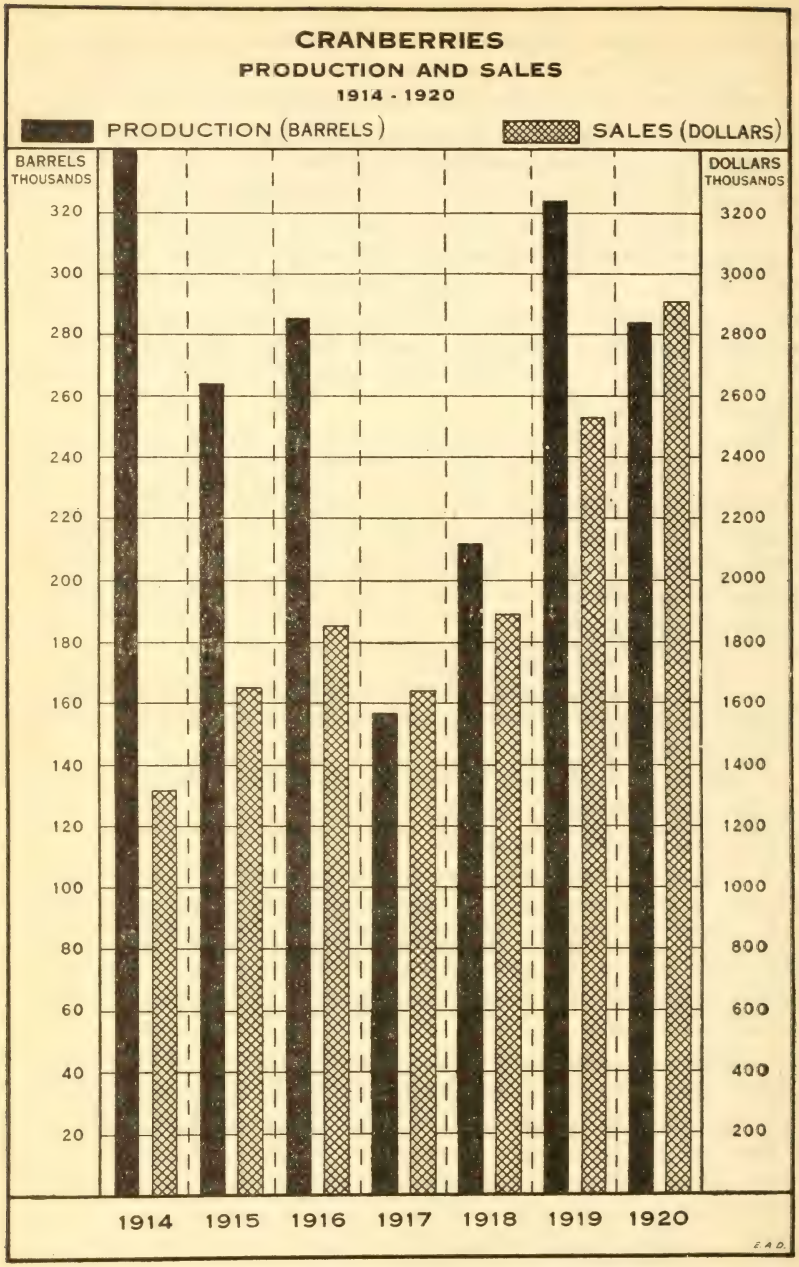

FIG. 4.—Before advertising was begun it was not unusual for a large crop of cranberries to bring a smaller total receipt than a small crop. The crop of 1914 brought less than a crop one-half as large in 1917. Advertising was begun in 1916. Even in the face of sugar shortages and increased transportation rates, growers' receipts have not decreased with increased production since that date.

for prices which would have meant a decided loss for all those interested in cranberry production.

This view is expressed by the general manager of the American Cranberry Exchange in his annual report for the season:

> When we consider that the cost of production of a perishable food that is not a prime necessity—a crop which must be sold while it is sound and in season—has practically no influence on the sale price, the comparative proceeds obtained for this crop, notwithstanding the serious sugar shortage and the intermittent and difficult transportation conditions, seem to me to prove conclusively that a great saving of waste and values was secured through cooperative distribution and advertising.

Figure 5 shows the per capita consumption, by States, of cranberries shipped through cooperative organizations. It will be

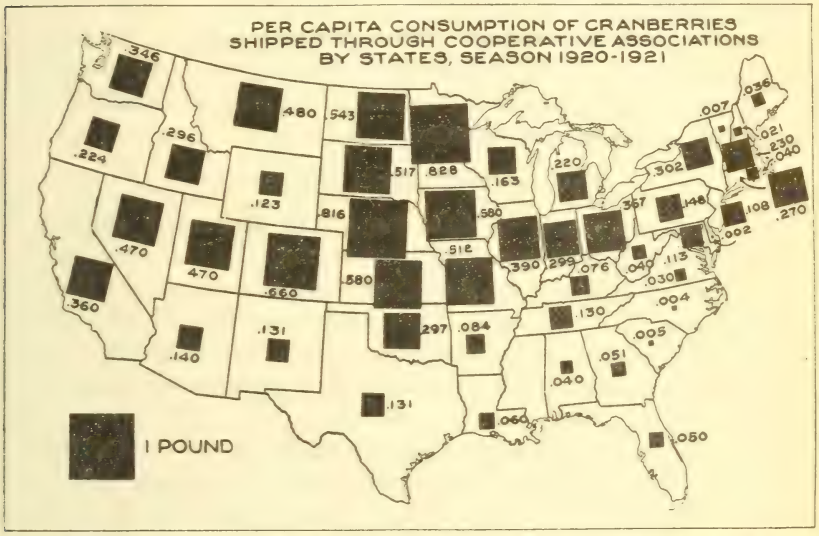

FIG. 5.—There are immense possibilities in the way of increasing the consumption of cranberries. The average per capita consumption in the United States for the season 1920–21, based on the cranberries shipped through the exchange, is slightly over one-fourth of a pound. Since the exchange handled approximately 65 per cent of the total production, the total per capita consumption was less than one-half pound. Surely a per capita consumption of one pound of cranberries yearly is a conservative possibility. A realization of this possibility would mean over twice the present average yearly production.

noticed that Minnesota has the highest record with a little over 0.8 pound per person. This low consumption rate indicates that many people, even in the States of highest per capita consumption, eat no cranberries whatever. Hence the great possibilities of increasing consumption is readily appreciated. Advertising is one of the mediums through which this possibility may be realized.

COOPERATION WITH THE TRADE.

Since the association markets its product through regular wholesale and retail channels, the good will of the trade is a vital asset. It must be admitted that the dealers (jobbers, retailers, and their

salesmen) can do much in the way of pushing the sale of a product through proper display and through good sales methods and suggestions. The exchange adopted the policy that the interest of the dealers in their fruit could best be obtained by the establishment of stable market conditions, thus insuring them a reasonable profit.

It is believed furthermore that a stable market lessens distribution costs. It is held by the association that "the smallest liability to loss and the greatest certainty of a moderate profit interests dealers more quickly and certainly than the possibility of large profits, coupled with the danger of serious loss." One of the reasons for what seems to be exorbitant profits charged by dealers for the handling of fresh fruits is occasioned by the danger of loss through violent fluctuations of market prices.

To avoid these fluctuations in the cranberry market, the exchange has attempted to regulate distribution in such a way as to eliminate the "glutted" and "famine" markets which were so disastrous to all concerned, including the consumer.

COORDINATING DEMAND WITH SUPPLY.

Successful marketing consists largely of accurately gauging the factors of supply and accurately estimating the factors of demand with a view of anticipating the price which will coordinate these two sets of forces. For instance, if the association should ask too low a price for its fruit it would not have enough to supply the demand. If it should ask too high a price the entire crop would not be sold by the end of the season.

This principle may be illustrated further. In 1912 the following questionnaire was sent to 200 retail dealers throughout the United States: "Suppose the retail price of cranberries is 8⅓ cents per quart, or 3 quarts for 25 cents. Please state what reduction in your sales would result from advancing the price to 10 cents per quart, 12½ cents per quart, 15 cents, and 20 cents." Ninety-two replies from 20 markets located in 16 States were received. The average estimated percentage of decrease of sales as price advanced was as follows:

An advance of 8⅓ cents to 10 cents per quart reduces sales 12 per cent.
An advance of 10 cents to 12½ cents per quart reduces sales 23 per cent.
An advance of 12½ cents to 15 cents per quart reduces sales 37 per cent.
An advance of 15 cents to 20 cents per quart reduces sales 67 per cent.

Although the price levels of 1912 have little relationship with the price levels of to-day, it is probable that proportional increases in present price levels would have similar effects upon consumption.

The economic value of the cranberry is represented by the highest price (or series of prices) that will clean up the supply by the end of the normal selling season. It is to the advantage of the association

to obtain as high a price as possible, but in obtaining this price care must be exercised that future consumption is sufficiently encouraged to take care of the normal season's yield.

With these points in mind it can be seen that the success of the association depends not so much upon influencing the market as on putting itself in position to gauge the factors which influence the sale of its product. Thus it can be prepared to take advantage of the conditions which exist.

The only price named by the exchange is the "opening price" at the beginning of the season. Market conditions set the remaining quotations. Experience has proved that it is of the utmost importance that this opening price conform closely to supply and demand factors. As an illustration, in 1920 the exchange's opening price was $8.50 a barrel, while private dealers were quoting $10 a barrel. Much complaint came from the competing trade because of the exchange's low price. Yet the manager and directors of the association were convinced that market conditions would not permit a retail price higher than 15 cents per quart. An exchange price higher than $8.50 per barrel would not allow a 15 cent retail price. The slow demand at the beginning of the season proved the wisdom of not setting a higher price. Cancellation of conditional orders equaled 30 per cent, when ordinarily it does not exceed 10 per cent. One of the strongest markets canceled 7 out of 10 orders. Certainly a higher opening price would have proved disastrous by discouraging consumption. That the price was not too high is shown by the fact that cranberries began to advance shortly after the beginning of the season and continued to increase until all berries were sold. Figures 2 and 3 show that cranberry prices increased during the 1920 selling season while the prices of other commodities decreased at a rapid rate.

The importance which the association places on the influence of an opening price may be gained from a statement of the general manager of the exchange in a report to the members of one of the State associations: "I am positively convinced that the greatest, most common, and most fatal of errors committed by marketing organizations and shippers is made in establishing their starting or opening price."

It goes without saying that naming a price which will coordinate demand with the existing supply requires the exercise of sound judgment based upon long experience in the marketing of the product in question. Here, then, is another advantage inherent in sound cooperative organization. Individually the growers are not able to avail themselves of this talent and experience. Collectively they are able to employ as efficient guidance as that with which they must compete in the sale of their product.

IMPRACTICABILITY OF PRICE CONTROL.

At the present time the public entertains a vague fear that the farmer may gain control over price by the exercise of monopoly power through his cooperative marketing associations. Monopolization of the supply of any "freely produced" goods is a task that has never been accomplished for other than temporary periods. Agricultural products are "freely produced"; that is, the important farm products are grown over wide areas. Their production is not confined to any one State, one nation, or one continent.

The cranberry, for instance, requires a most highly specialized combination of soil and moisture requirements—land that can be flooded and drained at will. Because of the necessity of this highly specialized cultural environment it is looked upon as a restricted crop, one of the least freely produced among the agricultural products. Yet the area which can be devoted to cranberries is subject to great expansion should the price of the fruit be such as to encourage the production of a greater supply. This country has a goodly supply of swamp lands suitable for cranberry culture, which would be brought under cultivation if the price of cranberries should encourage an increased supply. To maintain an abnormally high price and at the same time to restrict production, it would be necessary for the present growers to control all the potentially available cranberry lands—a practical impossibility.

Because farm products can be grown over such wide areas, the monopoly of the supply of these products would require an organization of national scope. The whole-milk supply of the cities is about the only important exception to this generalization. Because of the perishability of this commodity its production is confined to rather restricted areas near the place of consumption. Yet it is doubtful, indeed, whether producers of whole milk can be successful in any large measure in the marketing of their products if their methods depend upon monopoly power. Monopoly power in the marketing of agricultural products, even in goods produced in restricted areas, such as whole milk, defeats its own end. This defeat comes about by reason of the fact that a higher than a competitive price encourages overproduction to an extent that the farmers' organization becomes wholly unable to dispose of the excessive supply at a price sufficient to maintain this increased production. Since monopoly price presupposes the control of supply, it places the monopolization of farm products practically beyond human accomplishment. It is quite conceivable—although practically impossible—that the number of acres planted could be regulated through organizations or otherwise, but the amount that will be produced from this acreage for any given year is a matter of conjecture at the time of plant-

ing. An exceedingly favorable year will increase the expected yield 25 per cent. On the other hand, floods, droughts, disease, or insect pests may reduce the expected returns to as great an extent.

Furthermore, in connection with the possibility of controlling the supply, it should be remembered that farm products for the most part, because of their perishable nature, must be "cleaned up" each year. It is not easy to carry them over from season to season in an effort to restrict the supply going on the market during any one season. It is sometimes suggested that growers may leave their products unharvested in order to restrict supply and at the same time reap a higher price for the reduced supply than would have been received for the whole. This suggestion might appeal to the grower were it not for the fact that he has expended much money, time, and effort in bringing his product to the harvest period, and the loss of this expenditure for one year would in most cases burden the next year's crop with a loss not likely to be repaid. In fact, he has no assurance that next year's crop can carry its own burdens. There are times when crops are not harvested, but such a condition is due, not to the desire of the grower to restrict production, but to the fact that the market price will not pay harvesting and marketing costs.

It should be remembered that monopoly among farmers requires the united action of a large number of individuals, which makes secrecy impossible, and hence exposes any artificial price control to the law and to the public. The human element presents a serious obstacle in any attempt to enforce the sufficient unity of action necessary to create monopoly power among a large number of individuals scattered over wide areas.

So much for the power of farmers controlling the price of agricultural products in general. Are the cranberry growers' organizations an exception to the above principles?

Since the organized growers control approximately 65 per cent of the cranberry supply, it might be concluded on first thought that they are in position to control arbitrarily the price of their product. A brief analysis, however, will show that artificial price control is nearly impossible. It must be accepted as a fact that the forces which influence supply and demand are the forces which influence price. The cranberry growers, therefore, in order to control the price must exercise a direct influence over the forces which regulate the production of the berries, as well as control the forces which tend to govern the buying tendencies of the consumer.

First, let us examine the supply side of the equation. In general, the size of the cranberry crop depends upon the number of acres in bearing and the yield per acre. The cooperative associations do not attempt to influence the number of acres devoted to cranberry

culture. It is doubtful, indeed, if the association could influence acreage to any great extent. If cranberry production yields a good return over a period of years, the acreage devoted to this product increases as a matter of course. If, on the other hand, returns are small, acreage decreases. Hence the exchange influences acreage only indirectly through the relation of the price obtained to the cost of production. Certainly it has no power to say who shall or who shall not grow cranberries. Furthermore, since cranberries do not come into full bearing for four to six years after planting, a program of artificial restriction of acreage would have the added difficulty imposed by the necessity of forecasting conditions likely to exist four to six years in the future.

In regard to the yield per acre, it can be safely said that it is the earnest desire of the cooperative associations, as well as that of every cranberry grower, to attain the highest possible efficiency in production. Efficiency in production demands yields commensurate with the amount of land, labor, and capital devoted to the enterprise. Cooperative associations materially aid the growers to increase their efficiency in production by the adoption of improved methods and practices. To this end specialists on cranberry culture are employed to visit and advise with the growers.

The futility of control of the supply by the association is better illustrated by the fact that weather conditions and disease and insect pests beyond the control of the grower, may double, cut in half, or practically wipe out altogether the yield of a given district.

The fluctuation in yields since the organization of the growers in 1907 is an indication that the associations have little control over quantities produced. During the last 14 years cranberry production has fluctuated from 40 per cent below the average to 35 per cent above the average. (See fig. 6.) The cooperative associations own no bogs. As has been stated, to monopolize supply would require that they own or control all potential cranberry acreage—an almost impossible accomplishment. In short, the possibility of artificially regulating the quantity of cranberries grown during a given season seems at present beyond serious consideration.

Prices are as dependent upon conditions influencing demand as they are upon the factors of supply. Especially is this true of commodities which are easily substituted or not considered as necessities, a class which includes many fruits and vegetables. The whims of the consuming public may make such a commodity valuable or worthless regardless of its production costs. This is a fact overlooked in too many instances. It can be said without hesitation that the price received for cranberries is dependent in no small measure upon the demand of the consuming public.

What are the more important factors making up the demand for cranberries and how can they be influenced? Demand is influenced in a large measure by weather conditions during the selling season (cool, crisp weather is conducive to increased consumption); the supply of other fruits which may readily be purchased in place of cranberries; the supply and price of sugar—a primary consideration; the ability of the consumer to purchase, as reflected by the prosperity of the people in general; the good-will attitude of the trade and the public toward the fruit.

Certainly growers, neither individual nor organized, can hope to exercise control over the weather conditions during the selling season,

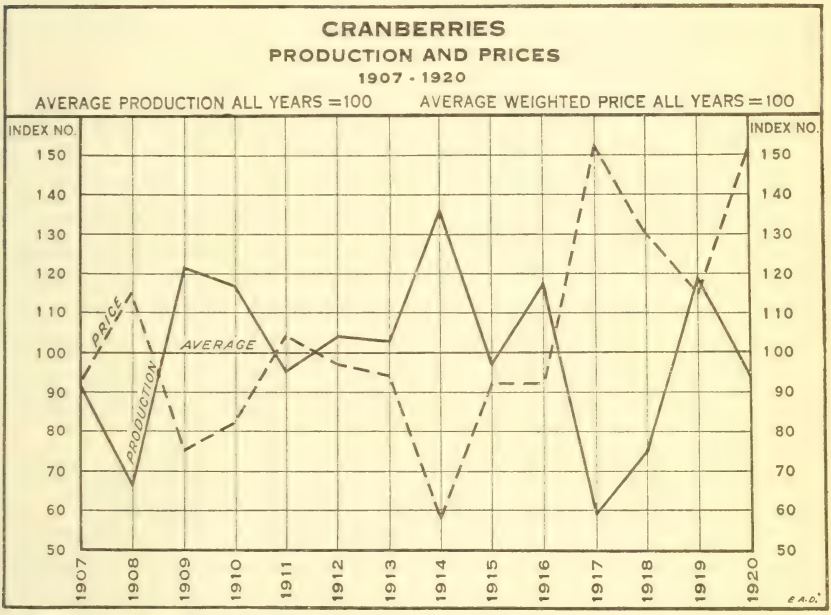

FIG. 6.—The wide fluctuation in cranberry production indicates that the cooperative associations exercise little or no control over quantities produced. During the two seasons just past, the price has not decreased in the same degree that production has increased. A 95 per cent crop brought a price ranging from 15 to 50 per cent above the average.

the supply of competing fruits, the price of sugar, or the prosperity of the consuming public. Hence it requires no argument to point out that the growers' associations have no monopolistic grasp on prices by reason of their control over the factors of demand. The associations do attempt to secure the good will of the dealers handling their product and also the good will of the public consuming it, which are worthy objects.

The good will of the consuming public is the most valuable asset the cranberry growers can possess as an aid to the successful marketing of their fruit. This good will must be secured and retained. It is for this reason that an unduly high price on cranberries is a matter

of equally grave concern to the association as an unduly low price. The grower has learned by experience that his best interest requires the custom of the great bulk of the consuming public—laborers and farmers. He has also learned that a retail price above 25 cents a pound cuts off this class of consumption. When to these two accepted facts is added the further knowledge on the part of the growers' association that the custom lost when the fruit goes above 25 cents a pound retail is difficult to win back, it can readily be seen that it is not to the growers' best interests that fruit should be sold at high prices. Careful marketing studies have shown the growers that an association price to the wholesale trade above 15 cents a pound is likely to result in a retail price above 25 cents. Hence, it is to the advantage of the association to place the bulk of its supply on the market at a price below the 15-cent mark.

The 1921–22 season illustrates this point. The crop was short. The demand for berries was good. If the association had distributed its supply during the normal selling period, the demand for berries would have caused the price to advance early in the season to a level that would have cut off a large class of people whose custom is valuable during a season of normal production. In order to avoid this, the association kept pushing its berries on the market in order to satisfy the demand at rates that would permit a retail price of 25 cents or less. As a result of this policy, the association's supply was practically exhausted before the end of December, whereas in a normal year the selling season continues until the latter part of February.

Here is a concrete instance of a cooperative association throwing its supply upon the market to discourage unduly high prices. This action was in keeping with the best interests of the association as demonstrated by past experience. It was in line with a long-time sales policy designed to retain the volume of custom necessary to the disposal of a normal crop.

When the good will of the consumer is such a dominant factor in the sucess of a marketing organization, it can hardly be said that the organization is in position to exert an artificial control over the price of its product.

THE EXPENSE OF MARKETING CRANBERRIES.

Cranberries are handled by the grower up to the time they are placed in the car for shipment. Picking, sorting, carting, packing, and a greater part of the storage is performed by the grower and is considered a part of his production cost. The local associations, however, supervise the performance of some of these practices. In Massachusetts the cooperative association operates four screen houses where farmers may have their berries screened, sorted, and packed at cost.

LOCAL ASSOCIATIONS.

The marketing expense begins with the local association. The grower has his direct dealings with the local association and it acts as an intermediary between him and the central selling organization. It maintains an office in the cranberry district where all records of shipments and sales are kept for the growers' inspection. The local associations employ field agents whose duty it is to see that all picking, packing, and grading practices are conducted in the proper manner. The local associations also furnish barrel and box labels to the grower and whatever advertising is placed in the packages. They order the cars, thus relieving the grower from all dealings with the transportation companies. They distribute the orders received from the central selling organization and take complete charge of the pooling system. They distribute to the individual growers the money received from the sales of the central organization. It is to the State or local association that the grower goes for any information or to lodge any complaints that he may have.

An allotment of 2 per cent of total sales is made to defray the expense of these services. However, under ordinary circumstances a portion of this allotment is refunded to the grower.

TABLE 5.—*Operating expenses of State associations, 1920.*

Expenses.	Total barrels shipped, 284,019.		Massachusetts barrels shipped, 175,659.		New Jersey barrels shipped, 84,661.		Wisconsin barrels shipped, 23,699.	
	Amount.	Average per barrel.	Amount.	Average per barrel.	Amount.	Average per barrel.	Amount.	Average per barrel.
Salaries	$20,134.32	$0.0709	$13,500.72	$0.0769	$5,520.00	$0.0652	$1,113.60	$0.0470
Telegrams and telephones	1,730.32	.0061	1,028.67	.0059	701.65	.0083	(1)	.....
Labels	7,512.36	.0264	5,957.71	.0339	1,554.65	.0184	(1)	.....
Printing and office expenses	6,190.91	.0218	5,247.25	.0299	815.46	.0096	128.20	.0054
Travel	814.30	.0029	.....	.....	814.30	.0096	.....	.....
Rent	720.00	.0025	(2)	.....	600.00	.0071	120.00	.0051
Interest (actually paid)	4,595.75	.0162	3,547.22	.0202	1,029.39	.0122	19.14	.0008
Sundries	5,969.51	.0210	4,634.06	.0264	991.37	.0117	344.08	.0145
Total expenses	47,667.47	.1678	33,915.63	.1931	12,026.82	.1421	1,725.02	.0728
Income: 2 per cent of sales plus miscellaneous credits	61,703.67	.2172	36,590.35	.2083	18,889.21	.2231	[3] 6,424.11	.2711
Refund to growers [4]	11,726.01	.0413	2,674.72	.0152	6,862.39	.0811	2,188.90	.0924

[1] Included in sundries.
[2] This association owns its own building.
[3] $2,510.19 was placed in the surplus fund, which explains the difference between expenses plus refund to growers and the 2 per cent sales allotment.
[4] Two per cent of the sales is reserved for operating expenses. This item represents the portion of the reserve not used.

The operating expenses for 1920 were a little over 19 cents a barrel in Massachusetts, 14 cents in New Jersey, and 7 cents in Wisconsin. These differences are explained in a large measure by the differences in service performed. The Cape Cod district expends more money per barrel of fruit for inspection than either of the

other two districts. Furthermore, the expenses of the Massachusetts company included an experiment with a picking machine, made for the benefit of the growers, which alone exceeded the total operating expenses of the Wisconsin association. The Cape Cod growers are conducting experiments with a view to developing a power picking machine. In addition, this association operates company packing houses at cost for the benefit of small growers, which increases the overhead expense.

The average operating expense for all three local associations amounts to 16.8 cents a barrel.

THE CENTRAL ASSOCIATION.

The duties of the central selling organization begin where those of the local association cease. It becomes the selling agency for the local companies and renders all reports directly to the State companies and not to the growers individually. The central association takes complete charge of the berries after they are loaded into the car. It takes charge of all car diversions and keeps in close touch with the car until it reaches destination. It does all the selling and takes charge of all collections. Warehouses have been established in Chicago and other points where a large amount of cleaning and sorting is done on berries which have suffered deterioriation in transit. A traveling inspector is employed who travels over the country attending to serious claims which arise during the season. He attempts to locate the cause of the damage and fix the responsibility for it. The central association takes charge of all railroad claims that may arise. The advertising is entirely in its hands. It renders full accounts to the State companies of all sales and all charges which have accrued, such as storage, reconditioning or remilling, freight and cartage, and remits proceeds directly to them. For these services the central association is alloted 5 per cent of total sales. This allotment in 1920 amounted to 53½ cents a barrel. Actual operating expenses were only 46 cents a barrel, hence 7½ cents a barrel was returned to the grower.

Table 6—Operating expenses of central selling association, 1920.

[284,019 barrels handled.]

Disbursements.	Amount.	Average per barrel
1. Managers' and salesmen's salaries, brokerage fees and commissions to representatives in all markets	$85,845.76	$0.302
2. Printing, telegraphing, telephoning, rents, trade paper advertising, postage, credit agencies, legal advice and bonding	23,981.02	.084
3. Traveling expenses	6,238.62	.022
4. Salaries of office employees, New York and Chicago	12,822.51	.045
5. Bad accounts, charged off	1,574.44	.006
Total expenditures	130,462.35	.459
Reserve of 5 per cent of sales plus small miscellaneous income	151,995.10	.535
Refunded to State companies	21,532.75	.076

In addition to the above expense the central selling association spent $77,937.91 in advertising. This amount is equal to about 27½ cents for each barrel handled.

The usual brokerage rates on car-lot shipments are $20 a car which averages around 10 cents a barrel. In some of the Southern and Western States where the demand is lighter 15 cents a barrel is charged, while three Southern States reported a brokerage charge as high as 20 cents. By far the greater bulk is handled for 10 cents if in car-lot shipments. This fee is paid by the central association and is covered by the handling charge of 46 cents a barrel.

The total charge of both State and central cooperative association in 1920 was 62.7 cents a barrel.

ADVERTISING.

Expenditures for advertising amounted in 1920 to 27½ cents a barrel. An allotment of 35 cents a barrel was reserved, but because of the good demand for the product during the latter part of the selling season, it was not found necessary to expend the entire allotment.

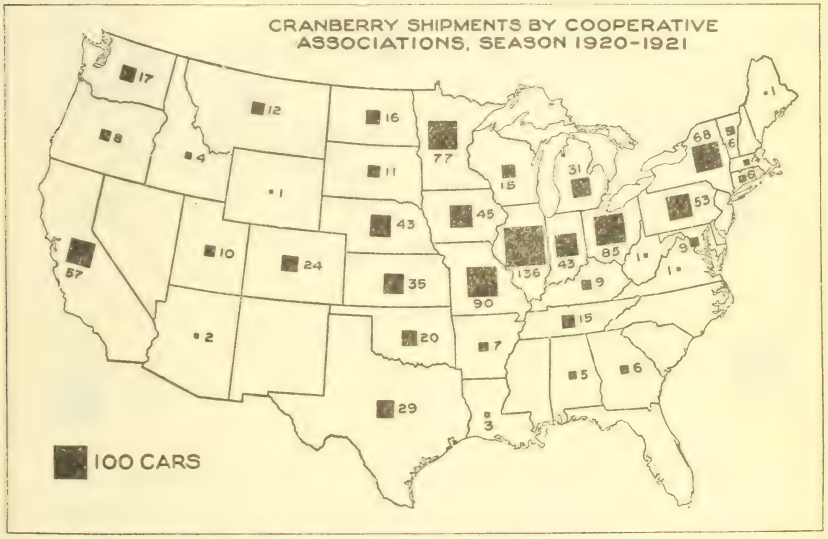

FIG. 7.—During the season 1920–21 the cranberry growers shipped cooperatively a total of 1,050 cars. These shipments went direct from producing districts to nearly every State in the Union. Forty-five cars not shown on the map were sent to Canada.

TRANSPORTATION.

Figure 7 is a graphic presentation of the car-lot shipments of the three cooperative associations through their central sales agency. This chart, together with the chart in Figure 5, shows that the Middle West furnishes the largest outlet for cranberries, and that the South consumes very small quantities in proportion to other sections of the country.

Figures 8, 9, and 10 show the car-lot shipments from Massachusetts, New Jersey and Wisconsin respectively. These charts show that there is no division of territory between the different associations. Even though such arrangement might be possible, and in a number of

cases might effect a saving in transportation costs, consumers' demands and trade practices make a division of territory highly impracticable, for, as has been stated, the different markets demand different kinds of cranberries.

"Cross freights" are often condemned for incurring what is termed an unjustifiable expense. However, in many cases the loss incurred by attempting to place goods regardless of consumers' demands and preferences would result in a far greater loss than that entailed by the "cross freights" incurred in catering to established trade wants.

The part which transportation plays in the cost of marketing cranberries has been estimated by taking the number of barrels shipped from each growing district to the various States and applying the

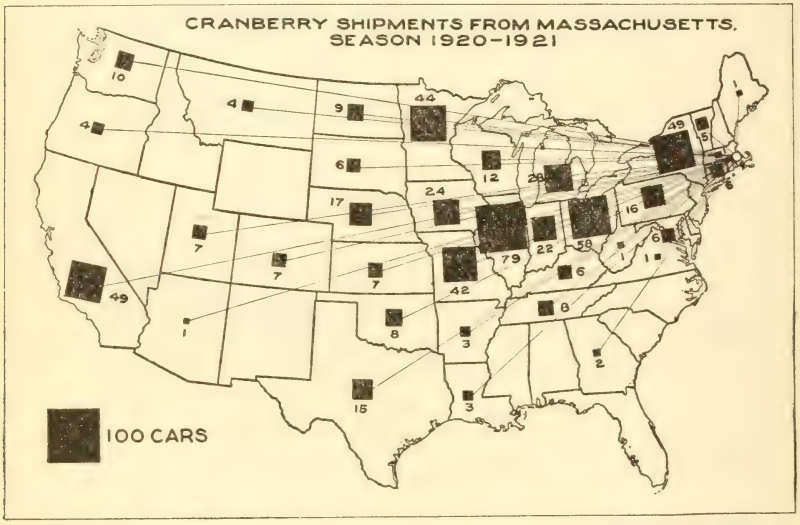

FIG. 8.—The Massachusetts association shipped 561 cars to 36 States and 40 cars to Canada.

freight rate from the principal shipping point in the growing State to the principal market in each consuming State. For instance, the cost of transportation on all berries shipped from Massachusetts to Iowa is based on the rate from the principal shipping point in Massachusetts to the principal city in Iowa. Estimated in this manner, the weighted average transportation cost for each district is as follows:

	Per barrel.
Massachusetts	$1.42
New Jersey	1.26
Wisconsin	1.10
All berries shipped through association	1.33

This estimate of $1.33 a barrel for the three districts does not cover the less-than-carlot shipments entailed in distributing cranberries to the retail trade from the jobbing centers. This expense is covered by the retailers' margin which is discussed later.

JOBBERS.

In answering a questionnaire 173 jobbers located in 26 States submitted handling margins on cranberries for 1920 which ranged from 4 per cent of selling price to more than 25 per cent. The range of jobbers' margins is shown below:

Margin: [1]	Number of jobbers
5 per cent or below	9
6 to 10 per cent	66
11 to 15 per cent	64
16 to 20 per cent	30
Above 20 per cent	4

The weighted average margin for all jobbers is 13.6 per cent of their selling price. The weighted average selling price of cranberries

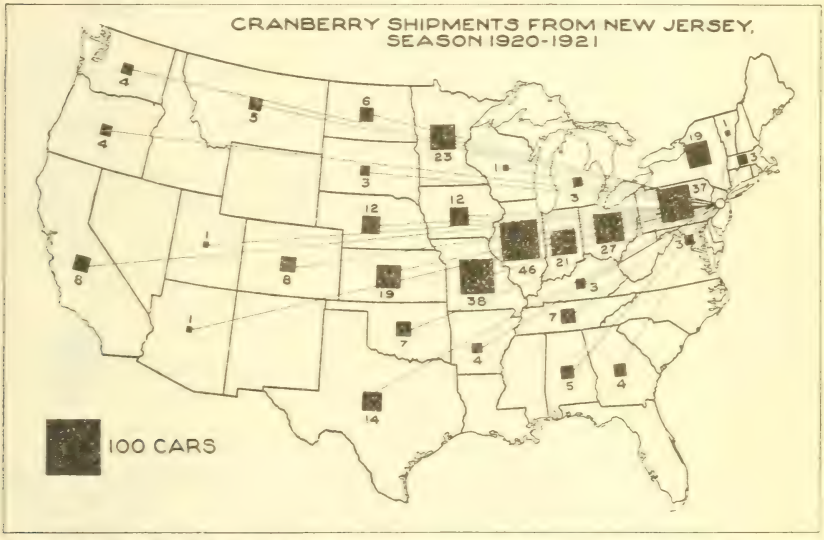

FIG. 9.—New Jersey car-lot shipments through the cooperative association amounted to 354 cars. Canadian shipments, not shown on the map, amounted to 5 cars.

by jobbers during October, November and December, the months of greatest sales, was $13.97 a barrel. Hence the jobbers' margin for the country as a whole was around $1.90 a barrel.

OTHER WHOLESALERS.

Although the jobber is the principal wholesaler of cranberries after they leave the hands of the exchange, some of the product is handled by more than one wholesaler in the same market. For instance, it is not unusual for a car-lot receiver to sell to a smaller wholesaler, or for a wholesaler to sell to a wagon peddler, who in turn supplies the retailer. This being the case, the jobber's margin does not cover the entire wholesale handling charge for all berries. It is difficult to as-

[1] Percentage of selling price.

certain the amount of the charges entailed by a second wholesaler, for it is not possible to learn the percentage of berries handled in this manner. However, it is believed that an allowance of 12½ cents a barrel on all cranberries marketed would cover the charges of "other wholesalers" for that portion of the product that is handled by a second or third wholesale agency.

RETAIL MARGINS AND PRICES.

Inquiry was made concerning the prices at which cranberries sold to the consumer during October, November, and December, 1920. Reports from 293 merchants in 26 States were collected showing that the retail price during these three months ranged from below 15 cents a pound in a few cases to above 30 cents a pound.

TABLE 7.—*Retail price of cranberries as reported in 26 States by retailers.*

Range of retail prices per pound.	Number and percentage of retailers selling at specified prices.					
	October.		November.		December.	
	Number of firms.	Number of firms reporting.	Number of firms.	Number of firms reporting.	Number of firms.	Number of firms reporting.
		Per cent.		*Per cent.*		*Per cent.*
Below 15 cents	25	9	15	5	8	3
15 cents to 19 cents	134	47	117	40	74	25
20 cents to 24 cents	89	32	121	42	125	43
25 cents to 30 cents	26	9	30	10	67	23
Above 30 cents	8	3	8	3	19	6
Total retailers	282	100	291	100	293	100
Weighted average price....(cents)..	17.3		18.5		20.4	

It will be noticed that on the whole the weighted average retail price advanced 3.1 cents from October to December. The wholesale price advanced during the same period approximately 5½ cents a pound. This lag in the retail price is due largely to the fact that the retailer establishes his selling price on the basis of the wholesale price of cranberries at the beginning of the season but fails to advance the price as rapidly as the wholesale price advances. Furthermore, chain stores, cash-and-carry, and similar stores follow the practice of pushing cranberries as a leader on a very narrow margin during the Thanksgiving and Christmas holiday seasons. Such practices compel all stores to maintain low prices during this period in order to meet competition. Since chain and cash-and-carry stores are more numerous in the larger cities, this probably accounts for the fact that the retail price of cranberries was lowest in these places.

Of the total number of 282 retailers in 26 States, 8 reported handling margins below 10 per cent of the selling price, 6 reported margins of 10 to 14 per cent, 37 reported 15 to 19 per cent, 107 reported 20

to 24 per cent, 96 reported 25 to 29 per cent, 22 reported 30 to 34 per cent, and 6 reported 35 per cent and above. The weighted average margin for all stores reporting was 22.4 per cent of the retail selling price.

The average retail price of 18.7 cents a pound as reported by the 293 stores in cities of all sizes is not altogether representative in view of the fact that the greater amount of berries is sold in the larger cities at a slightly lower price. It is believed that 18 cents a pound is a representative estimate for the retail price of cranberries for the country as a whole during the three months under consideration.

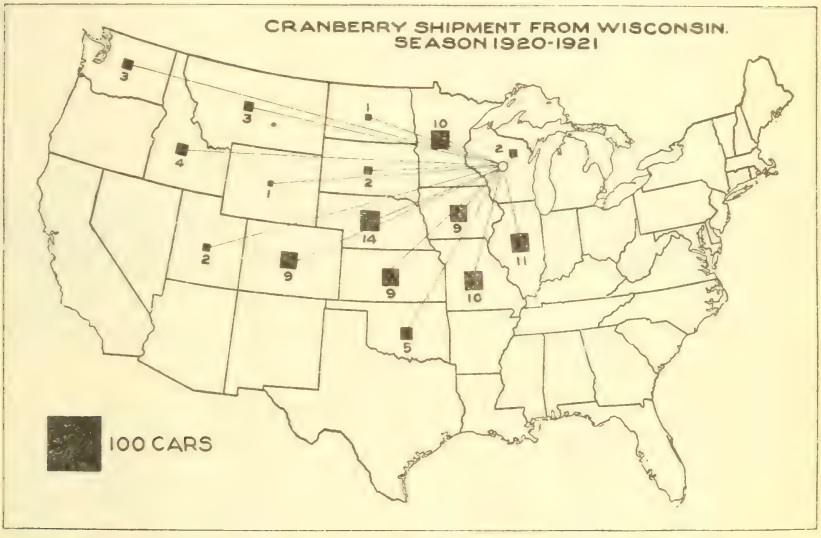

FIG. 10.—Wisconsin cooperative shipments cover a limited territory compared with the shipments of the other two districts. The 95 cars shipped in 1920–21 went almost entirely to the North Central and Western States.

The handling margins of retailers in 1920 ranged from around 10 per cent to above 35 per cent.

On the basis of a retail price of 18 cents a pound, or $18 a barrel, the retailer's margin for the period considered would amount to $4.03 a barrel. This means a margin of 4 cents a pound to cover retailer's handling expense. This retail handling expense is necessarily relatively heavy, for cranberries are sold to the ultimate consumer in small lots and all of the expense items of retail distribution enter in.

Table 7 gives the retail prices for cities of varying sizes. Retail prices from September 27 to December 4, 1920, at stores in 13 large markets are given in Table 8:[1] All of the stores visited reported a price below 17 cents a pound until after Thanksgiving Day.

[1] These data were gathered by representatives of the American Cranberry Exchange.

TABLE 8.—*Retail prices of cranberries at 13 large markets in 1920.*

[Total stores, 11,334.]

City.	Dates included, 1920.	Number of reports included.	Retail price per pound.
New York	Sept. 27 to Oct. 9	2,410	$0.16
Chicago	Oct. 11 to Oct. 23	2,907	.159
Milwaukee	Oct. 25 to Oct. 30	297	.156
Indianapolis	do	491	.157
Minneapolis and St. Paul	Oct. 25 to Nov. 6	626	.154
Detroit	do	596	.152
Cincinnati	Nov. 1 to Nov. 13	907	.151
Kansas City	Nov. 8 to Oct. 20	563	.162
Omaha	Nov. 1 to Nov. 13	513	.161
Toledo	Nov. 8 to Nov. 20	603	.158
Pittsburgh	Nov. 15 to Nov. 27	858	.23
Columbus	Nov. 22 to Dec. 4	563	.199

ALL MARKETING EXPENSES.

Table 9 gives a comparison of marketing expenses. It will be noticed by this table that the grower receives 54 per cent of the consumer's dollar for growing and packing the fruit. Although data are meager concerning the percentage of the retail price which the grower receives on other perishable fruits and vegetables, it is safe to say that on the whole this percentage is well below the 50-cent mark.

Transportation charges amounted to over twice the amount charged by the cooperative associations.

TABLE 9.—*Expense of marketing a barrel of cranberries, 1920–21.*[1]

Items.	Marketing expense.	Per cent of total expense.
Grower	$9.713	54.0
Cooperative marketing associations[2]	627	3.5
Advertising	.275	1.5
Transportation	1.333	7.4
Jobber	1.899	10.5
Other wholesalers	.125	.7
Retailer	4.032	22.4
Realized on barrel at retail	18.004	100.0

[1] Based on a retail price of 18 cents a pound.
[2] Both local and central.

Jobbers and other wholesalers charged for their services an amount equal to the combined charges of the cooperative association and the transportation agencies, while the retailer's margin amounted to practically one-half the total marketing expense, yet it is doubtful if the retailer's margin was sufficient to cover more than his actual handling cost.

The conclusion drawn from this study is that the cranberry growers have built up an efficient marketing organization marked by two

outstanding facts: (1) During the year 1920 with a crop but slightly below normal (95 per cent of normal), in the face of rapidly falling prices on practically all other commodities, the cranberry market advanced throughout the selling season. (2) The grower received

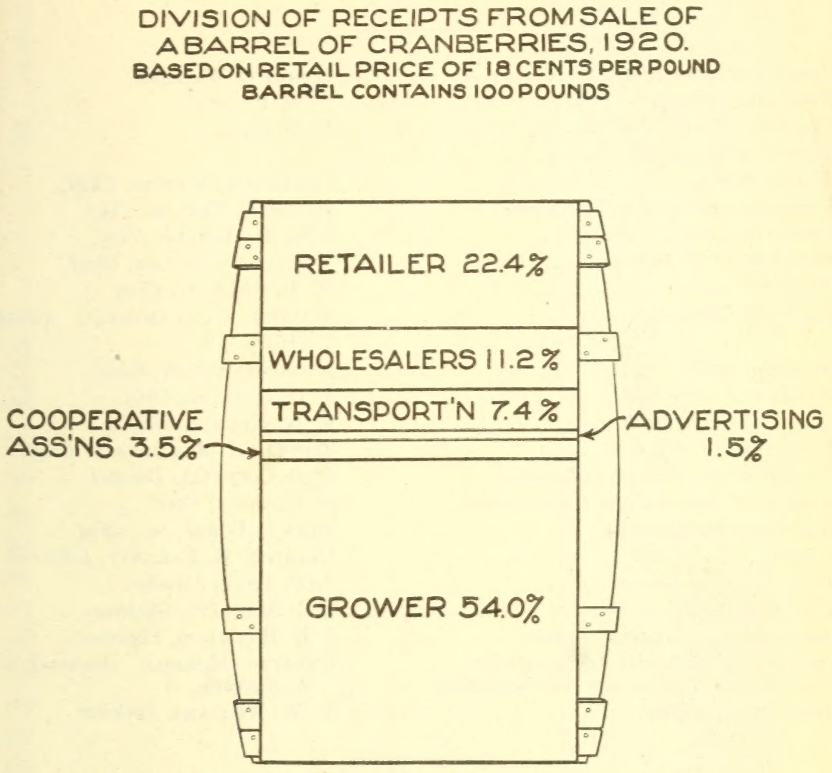
DIVISION OF RECEIPTS FROM SALE OF A BARREL OF CRANBERRIES, 1920.
BASED ON RETAIL PRICE OF 18 CENTS PER POUND
BARREL CONTAINS 100 POUNDS
RETAILER 22.4%
WHOLESALERS 11.2%
TRANSPORT'N 7.4%
COOPERATIVE ASS'NS 3.5%
ADVERTISING 1.5%
GROWER 54.0%

FIG. 11.—The 54 per cent of the retail price received by the grower for producing and packing cranberries is well above the amount received by producers of most other perishable fruit and vegetable products.

a greater percentage of the consumer's dollar than has been shown in studies of other perishable food commodities. In other words, the marketing expenses appear to be less than are ordinarily charged on similar products.

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